

WHAT IS CLAIMED IS:

Sub *or* ~~1. A method of rendering screen of a computer display device under conditions requiring frequent repainting of the screen, said display device being a part of a computer system running an application under control of an operating system, said method comprising the steps of:~~

- ~~a. detecting the onset of conditions requiring frequent repainting of the screen,~~
- ~~b. obtaining from the operating system information necessary for repainting,~~
- ~~c. partly repainting the screen,~~
- ~~d. checking whether conditions of step a. still apply, and~~
- ~~e. repeating steps b. through d. until the conditions of step a. no longer apply.~~

sel ~~2. A method according to claim 1, wherein the application is a graphic visualization application.~~

sel ~~3. A method according to claim 2, wherein steps a., b., and d. are carried out based on messages sent by the operating system to the application's message queue.~~

sel ~~4. A method according to claim 3, wherein the operating system is MS Windows operating system.~~

sel ~~5. A method according to claim 4, wherein the screen displays a graphically complex visualization scene.~~

sel ~~6. A method according to claim 5, wherein the conditions requiring frequent repainting of the screen are a result of a navigation operation initiated by an application user.~~

sel ~~7. A method according to claim 6, wherein the scene is navigated with an input device.~~

sel ~~8. A method according to claim 7, wherein the input device is a mouse or a keyboard.~~

9. A method according to claim 7, wherein the navigation operation is selected from the group consisting of panning, rotating and zooming.
10. A method according to claim 5, wherein the scene is represented in the computer system as a scene graph.
11. A method according to claim 10, wherein in step c. the screen is partly repainted by rendering a predetermined number of objects of the scene graph.
12. A method according to claim 11, wherein step c. is repeated and more objects are added to the scene if in step d. no navigation-related message is found in the message queue.
13. A method according to claim 12, wherein the screen is repainted in the order of traversing the scene graph.